

BOMSEL et al.
Appl. No. 10/579,921
Atty. Ref.: 3665-180
Amendment
March 8, 2010

AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows:

Claims 1-22. (Cancelled)

23. (Withdrawn) A method for increasing the fusiogenic capacities of a gamete comprising contacting the gamete with a cyclic peptide of claim 34.

24. (Withdrawn) A method for increasing the fusiogenic capacities of a gamete comprising contacting the gamete with a cyclic peptide of claim 36.

25. (Withdrawn) A method for increasing the fusiogenic capacities of a gamete comprising contacting the gamete with a cyclic peptide of claim 37.

26. (Withdrawn) A method for increasing the fusiogenic capacities of a gamete comprising contacting the gamete with a multimer of claim 38 .

27. (Withdrawn) A method for increasing the fusiogenic capacities of a gamete comprising contacting the gamete with a multimer of claim 40.

28. (Withdrawn) The method according to claim 23, wherein the gamete is an oocyte

29. (Withdrawn) The method according to claim 24, wherein the gamete is an oocyte.

30. (Withdrawn) The method according to claim 25, wherein the gamete is an oocyte.

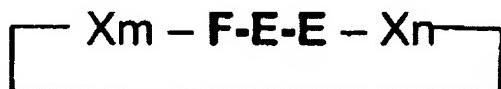
31. (Withdrawn) The method according to claim 26, wherein the gamete is an oocyte.

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32. (Withdrawn) The method according to claim 27, wherein the gamete is an oocyte.

33. (Withdrawn) A method for treating fertility problems comprising administering locally in a female genital tract a cyclic peptide according to claim 34

34. (Currently Amended) A cyclic peptide having the ability to increase the fusiogenic capacity of a gamete and having the following formula :



wherein X represents an amino acid which can be different or identical for each occurrence, ~~m is equal to 0 to 14, and n is equal to 0 to 14, and m+n is less than or equal to 5.~~

Claim 35. (Canceled)

36. (Previously Presented) The cyclic peptide according to claim 34, wherein said peptide has the following formula :



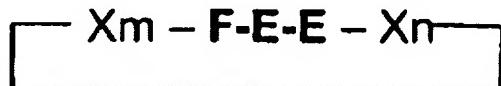
(SEQ ID NO:17)

where X is an amino acid or is selected from the group consisting of A, S or T.

37. (Previously Presented) The cyclic peptide according to claim 36, wherein X is S.

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38. (Currently Amended) A multimer of cyclic peptides, said peptides having
the ability to increase the fusiogenic capacity of a gamete and having the following
formula :



wherein X represents an amino acid which can be different or identical for occurrence, ~~m is equal to 0 to 14, and n is equal to 0 to 14, and m+n is less than or equal to 5.~~

Claim 39. (Canceled)

40. (Previously Presented) The multimer according to claim 38, said peptide has the following formula :



(SEQ ID NO:17) wherein X is an amino acid or is selected from the group consisting of A, S or T.

41. (Previously Presented) A composition intended for gamete culture comprising a peptide according to claim 34 or a multimer according to claim 38.

42. (Withdrawn) A method for treating fertility problems comprising administering locally in a female genital tract a peptide according to claim 34.

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43. (Withdrawn) A method for screening compounds increasing the fusiogenic capacity of oocytes comprising 1) incubating the oocyte in the presence of the test compound; and 2) evaluating the ability of the compound to increase the fusiogenic capacity of the oocyte.

44. (Withdrawn) The method according to claim 43, wherein the ability of the compound to increase the fusiogenic capacity of the oocyte is evaluated by at least one of the following criteria : binding to the oocyte, induction of adhesion protein displacement to the oocyte surface (more particularly of integrin $\alpha 6\beta 1$), fusion of the oocyte with a spermatozoon.